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A new contribution to the knowledge of Chinese stag-beetles.

Lucanus fonti n. sp. from Zhejiang (Coleoptera Lucanidae)

Abstract - The new species *Lucanus fonti* is here described. It belongs to the large group of *L. fortunei* and is closely related to *L. swinhoei* s.l., from which it differs mainly through the shape of the mandibles with their inner tooth placed slightly before the mid-length; moreover through the more transverse head and the stouter aedeagus with weakly apically curved paramera.

Key words: Lucanidae, *Lucanus*, new species, Zhejiang, China.

Riassunto - Nuovo contributo alla conoscenza dei Lucanidi cinesi. *Lucanus fonti* n. sp. dello Zhejiang (Coleoptera Lucanidae).

La nuova specie *Lucanus fonti*, qui descritta, appartiene al grande gruppo del *L. fortunei* ed è strettamente affine a *L. swinhoei* s.l., dal quale differisce per la forma delle mandibole con il dente interno situato leggermente prima di metà lunghezza. Inoltre per il capo più trasverso e l'edeago più robusto, con l'apice dei parameri debolmente ricurvo.

Parole chiave: Lucanidae, *Lucanus*, nuova specie, Zhejiang, Cina.

Introduction

Very few species belonging to the genus *Lucanus* Scopoli are known from the Chinese province of Zhejiang.

Mizunuma & Nagai (1994) and Krajcik (2003) report only two species: *Lucanus fortunei* Saunders and *Lucanus parryi* Boileau from Zejiang. Hua (2002) records a further species, *Lucanus maculifemoratus* Motschulsky. The latter record must be considered inaccurate, since the typical *L. maculifemoratus* is known from Japan only, replaced in China by the subspecies *L. m. boileau* Planet and *L. m. dybowskyi* Parry.

Recently, my colleague and friend Kiyotami Fukinuki sent me several *Lucanus* specimens from China and Myanmar for study. Among them I recognized an interesting new species from Zejiang close to *Lucanus swinhoei* Parry and belonging to the *Lucanus fortunei* species-group.

This new species is here described as *Lucanus fonti* n.sp.

Lucanus fonti n. sp. (Fig. 3a)

Holotype. Male: CHINA, Zhejiang, Siming Shan, VI.1989. Deposited in the collection of K. Fukinuki, Hiroshima, Japan.

Measurements: Length, including mandibles: 44.7 mm. Length without mandibles: 31.5 mm. Maximum head width, excluding mandibles: 12.2 mm.

Description (Holotype). Body slender, mostly reddish brown. Head, including mandibles, and pronotum darker, abdominal sternites with darker posterior and lateral margins; elytra with a narrow black border along the edges and suture; antennae and palpi black; femora and tibiae testaceous to ferrugineous with black margins.

Mandibles long and slender, proximally and distally curved, nearly straight in the middle; surface matt, because of distinct microsculpture, especially at base; dorsal surface with a well marked external margin, becoming sharper apically. Median tooth triangular, feebly tilted forward and upward, placed slightly before the mid-length. Inner mandibular margin with 3-4 proximal and 2-3 distal small denticles. Upper apical tooth bent upward, longer than the lower one. Lower basal tooth of the mandible small, conical, slightly directed forward.

Head transverse (W/L: 1.64), matt because of strong, dense largely confluent punctures throughout, with intervals finely granulose. Frons trapezoidal, slightly concave, fused with the epistoma; the latter triangular, apically blunt and fringed with scattered short yellowish hairs. Frontal ridge bisinuate, medially sharper and slightly protruding. Lateral cephalic ridges strongly sinuate, with rounded, apically raised, posterior corners. Anterior angles projecting laterally, but less than the prominent eyes; canthus shorter than half eye's diameter. Mentum large, trapezoidal, matt, strongly microreticulate, covered medially with sparse yellowish pubescence, longer along the sides; anterior angles broadly rounded, anterior margin medially strongly convex. Antennal club 4 jointed. Joints 8-10 with a strong, long, pubescent lamella; joint 7 with a shorter and thinner one, pubescent on its anterior surface only and with scattered setae elsewhere.

Pronotum transverse (W/L: 1.81), medially fairly shining, with deep, dense punctuation, microreticulate, becoming coarser, largely confluent and rugose laterally, with a very shallow median longitudinal depression; anterior angles apically rounded, posterior ones feebly protruding. Prosternal apophysis prominent, thin, apically rounded. Scutellum transverse, subtriangular, rounded, slightly pointed posteriorly, finely microreticulate throughout, deeply punctate except at edges and along mid-line. Elytra slender, microreticulate with dense shallow punctuation. Shoulders distinctly toothed.

Legs slender, fairly shining, microreticulate with large irregular punctures. Fore tibiae irregularly toothed on their external edge, mid-tibiae with three preapical (the basalmost smaller) spines, hind tibiae with two very small and weakly protruding preapical spines.

Pubescence very short and sparse all over the dorsal surfaces, more abundant along the elytral margins, sides of pronotum and bases of mandibles. It is much longer and thicker ventrally, especially on the thoracic segments.

Aedeagus robust (total length 5.52 mm) (Fig.1), damaged and partially destroyed by Coleoptera Anobiidae, one of which was found dead inside the specimen, flagellum lost, penis slender, shorter than parameres.

Female unknown.

Derivatio nominis. This species is dedicated to my friend and colleague Marco Leopoldo Font, who introduced me to the “strange world” of systematic entomology.

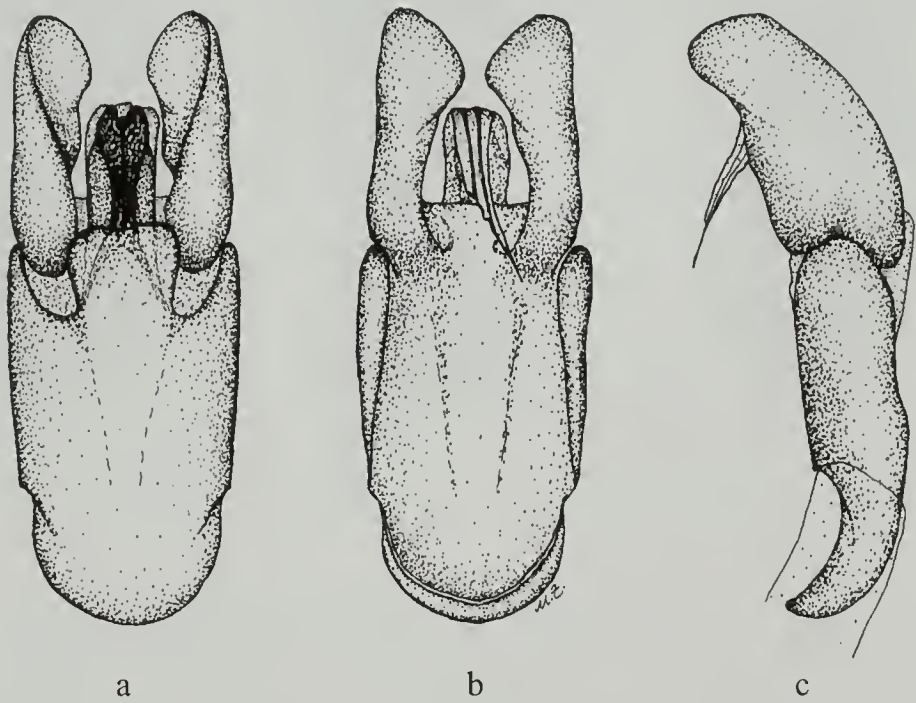


Fig. - 1) *Lucanus fonti* n. sp. a) Ventral view (visione ventrale); b) Dorsal view (visione dorsale); c) Lateral view (visione laterale).

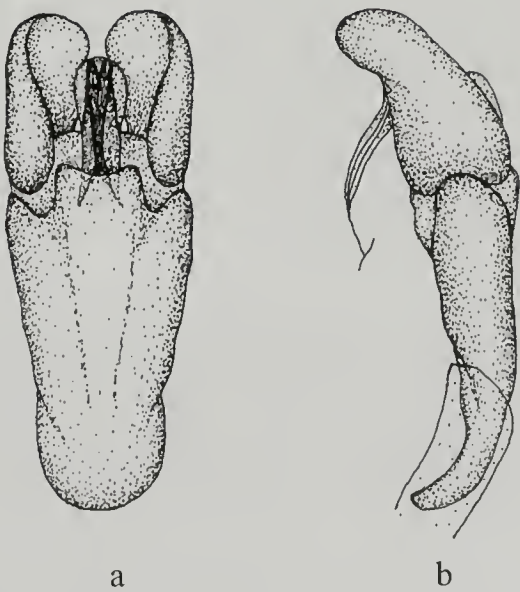


Fig. 2 - *Lucanus swinhoei* Parry. a) Ventral view (visione ventrale); b) Dorsal view (visione dorsale); c) Lateral view (visione laterale).



Fig. 3 - a) *Lucanus fonti* n. sp. Zejiang, China. Male, Holotype. (Coll. Fukinuki, Hiroshima, Japan); b) *Lucanus swinhoei* Parry. Taiwan. Male. (Coll. Zilioli, Buguggiate, VA, Italy); c) *Lucanus swinhoei continentalis* Zilioli. Fujian, China. Male, Holotype. (Coll. Zilioli, Buguggiate, Va, Italy).

Fig. 3 - a) *Lucanus fonti* n. sp. Zejiang, Cina. Maschio, Olotipo. (Coll. Fukinuki, Hiroshima, Japan); b) *Lucanus swinhoei* Parry. Taiwan. Maschio. (Coll. Zilioli, Buguggiate, VA, Italy); c) *Lucanus swinhoei continentalis* Zilioli. Fujian, Cina. Maschio, Olotipo. (Coll. Zilioli, Buguggiate, Va, Italy).

Remarks

This new species is closely related to *Lucanus swinhoei* s. l. and both belong to the large group of *L. fortunei*. This new species can be easily distinguished at a glance from *L. swinhoei* s. l. through the overall shape of the mandibles, with inner tooth placed just before the mid-length, rather than closer to the mandibular insertion. Moreover, the head is more transverse and the aedeagus is more strongly built, with weakly apically curved paramera.

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